



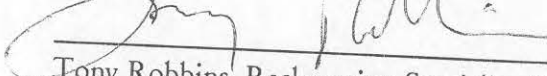
THE NAVAJO NATION

ALBERT A. HALE
PRESIDENT



MEMORANDUM:

TO: Perry Charley, Reclamation Specialist III
NAMLRD, Shiprock/Tuba City Field Office

FROM: 
Tony Robbins, Reclamation Specialist II
NAMLRD, Tuba City Field Office

DATE: June 3, 1997

SUBJECT: Project and Assignment Close out

The following is an update with some recommendations on the Projects on which I was working.

Cameron AML Reclamation Project 3

Temporary Trades Helpers: Two Trades Helper positions will be filled before initiation of CP3 Contract. An advertisement for these two positions was done and only two applicants were found qualified and of the two, Mr. Darrell Jackson has accepted the job offer. Mr. Jackson's employment papers have been forwarded to the Personnel Office for evaluation and we expect him to start on June 9, 1997. Another advertisement for the unfilled position was done and three additional applications were collected. The following is a list of additional applicants and the results of the preliminary evaluations based on information contained in their applications:

Names of Applicant	Drivers license	High School graduate	Earth moving construction/ environmental experience - 1 year	Meets minimum qualification	one year physical &/or environmental science college courses	Environmental control &/or monitoring experience
Guy Horsen	yes	yes	yes	yes	two yrs college	yes
Roger Semallie	yes	yes	no	no	no	no
Charles W. Yazzie	yes	yes	yes	yes	no	no

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TO: Perry H. Charley

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As evident from the chart above, two of the three applicants meet the minimum qualifications as stated in the Job Vacancy Announcements. Besides applying for the Trades Helper positions, the three applicants have stated that they were going to apply with the CP3 contractor. Of the three, Mr. Yazzie is an operator and has worked on previous AML projects; he worked for both NAMLRD and the contractors. Mr. Horsen has work for NAMLRD during the CP1 and CP2 construction and worked on the initial CP3 radiological surveying. Mr. Semallie has experience in construction work, but no experience in earth moving construction; in addition, Mr. Semallie is a veteran. Interviews will be set up for the qualified applicants, upon consultation with you (Perry H. Charley).

Supplies and materials: Mr. Carl Holiday, Department Health Physicist, will be ordering HP supplies as needed and will be ordering supplies before CP3 construction starts.

Ernest Grayeyes, Engineering Technician III, has ordered or is working on ordering additional supplies for construction startup and will order supplies as needed. Lack of storage space is a limiting factor in ordering large quantities of supplies. There are plenty of spray paint and stakes to start the project, but other items will need to be ordered, i.e., hard hats, orange vests, and other supplies for working in very hot weather. I will follow up on the status of this activity when Ernest gets back from vacation.

Project Documents: I will forward all project documents and files maintained by me to Mr. Lawrence Begay before I leave.

Problems and Recommendations:

1. When they start paleontological salvage, the Museum of Northern Arizona paleontologist/geologists may have a hard time, due to weathering of surface materials, Finding all the fossil materials that they identified to be salvaged in the paleontological survey report. I recommend that salvage work, in the future, be done when possible after the survey or even during survey work. NAMLRD can estimate the cost of this using historic costs. All *past* salvage work has been completed in one week, therefore, future paleontological surveys can include one week of salvaging. This will alleviate the lost of paleontological samples to weathering.
2. The grant period for this funding was extended for an additional year and the one year extension period will be up on September 28, 1997. Arrangements must be made with OSM to extend the grant period to cover the completion and close out of construction.

Cameron AML Reclamation Project 5

Cultural Resources Survey: A request was made of Navajo Nation Archaeology Department (NNAD)

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to provide a cost estimate for doing an archaeological survey that includes the CP5 sites and all other remaining AML sites, in the Cameron, Bitter Springs, Marble Canyon, Indian Wells and Canyon DeChelly (all areas are in Arizona) areas, previously unsurveyed. The total acreage to be surveyed is 469 acres, of which 156.5 acres is for CP5. Initially, the archaeological survey will be used to obtain clearance from Navajo Historic Preservation Office for areas included in CP5 and will be referred to for future archaeological clearances for reclamation in the surveyed areas listed above. NNAD returned a cost estimate of \$150/acre for a total of \$70,350.

Biological Survey: A request was made of Navajo Fish & Wildlife Department, Biological Survey Services (NF&W-BSS) to provide a cost estimate for doing a biological survey for the 33 AML sites in CP5. NF&W-BSS returned a cost estimate of \$4,690 to \$8,365. The final cost of the survey will be dependent on the length of the actual field investigation; this will vary due to what is discovered during the survey and the monitoring time necessary to identify species existing in the area.

Project area NA-0101 is in the Marble Canyon area, at the base of the Echo Cliffs; therefore, raptors, i.e., golden eagles and other raptor species, will be of a concern if they are found nesting in the area. An additional species of concern may be the newly reintroduced California Condors to the Vermillion Cliffs area. Vermillion Cliffs (a continuation of the Echo Cliffs) are to the west of, across the Colorado River, NA-0101.

The other project areas should have no impacts on T&E species or other species of concern, except the usual species of concern, such as the humpback chub.

See Memorandum from Debra Yazzie, Wildlife Biologist, for requirements before beginning of survey. Lawrence has my copy. The biological survey is being held off until a time closer to the completion of NEPA process to reduce the need for additional surveys due to delays in project development or startup of reclamation construction. The survey should be done, possibly, in the spring of 1998 during nesting of golden eagles.

Project Development: The initial V.E. was done in late 1996 to do a cost estimate for the Grant Application and the location maps of the sites were included. The following activities need to be done:

1. The control points for the boundaries need to be established and marked with rebar. Boundaries should be kept as close to the boundaries marked on location maps and the acreage reported to OSM. This can be done with the Trimble Pathfinder GPS equipment and can be further surveyed in when the new Pentax total station arrives. NA-0102 to NA-0110 can be tied into the existing Bullock Brothers control points.
2. Engineering design and preparation of technical specifications need to be done. One of the department's engineers will need to do this.

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3. Topographic surveys will need to be completed. Ernest can use the trades helpers hired for CP3 construction to help him in completing these surveys. From this, Project Maps can be developed and volume calculations can be made.
4. Project site NA-0110 is the only CP5 site that intermittently holds water; consequently, if a decision is made to mitigate the loss of this water source for wildlife and livestock, there are some alternative water sources in the area, including Yellow Spring.
5. The environmental assessment needs to be drafted and completed.
6. Radiological surveys need to be completed. Radiological background levels need to be established for all the project areas.

Problems and Recommendations:

1. The work of Ernest Grayeyes is will need to be scheduled carefully, so he can accomplish all of his duties. Ernest's Engineering Technician III duties include construction monitoring, drafting using AutoCAD and SurvCADD, and surveying. With multiple projects ongoing, Ernest will need to have a list of priorities to schedule his time.
2. The archeological survey cost exceeds funds allocated, so a solution needs to be conceptualized to complete the survey in a reasonable time. The reason the cost of the survey is high is due to the inclusion of all unsurveyed AML areas in the western portion of the Nation. The cost needs to be negotiated down.

A flat \$150 per acre that NNAD has proposed is not reasonable, for the sites around the Cameron AML District will only need an archival search and a pedestrian survey. The interviews for identification of traditional cultural properties will not need to be done, because the interviews used for previous archaeological surveys can be used. The interview portion of the archaeological survey will be the most time consuming due to not finding people home to interview or finding them - - - this may require one or more trips to the area to accomplish. A full survey, including the TCP interviews, will be required for the AML sites that are between the Cameron AML District and Marble Canyon, south of the Cameron AML District, the Hopi Buttes (Indian Wells) area and the Canyon De Chelly area. However, the survey is done priority needs to be given to the 156.5 acres of CP5.

Project Documents: I will forward all project documents and files maintained by me to Mr. Lawrence Begay before I leave.

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DATE: June 3, 1997

Maintenance Project

Project is on hold due to priority given to other projects (CP3 and CP5) and engineers busy with other priority projects. See attached "Reclaimed AML Sites Visited" list to see all sites that were visited during maintenance inspection during the summer of 1996 and a short identification of the problems noted. The V.E. for this project needs to be completed. CP1 and CP2 sites that need maintenance have been visited for the initial V.E. analysis and the cost estimate and draft scope of work has been done for some of the sites. I will give Lawrence all the information, maps and documents that have been generated so far.

All the sites needing contingency repairs have been included in reclamation projects in development and will be addressed during respective reclamation construction. Sites needing custodial maintenance will need to be addressed. Most of the sites needing custodial maintenance are sites that are remote and/or require work to reduce costly maintenance in the future. Some site will only require manual labor to repair erosion control structures, such as, adding more rocks to rock silt fences. See attached "Surveillance and Monitoring Checklist" for identification of sites needing maintenance and type of action (maintenance) these sites need.

Other Projects and Concerns

Coal Mine Mesa: While assisting with the bore hole camera work in late April 1997, we saw a large bull snake at one of the openings. This lead me to ask some questions about the subsidence openings concerning snakes. Troy Delmar told me that last summer, when he, Ernest Grayeyes and Lyndon Endischee were surveying the subsidence area they saw many little rattlesnakes in on subsidence opening. When the subsidences are being addressed, the probable snake habitat will likely be destroyed. Being a traditional Navajo, I asked my mother and father what to do in a situation like this; they informed me that areas like that are considered sacred (traditional cultural property - TCP) and should not be disturbed, unless required and if the correct offerings are made. They, my parents, also said that in a hole where snakes lived, they wind also resides there. After consulting with my parents, I was discussing the information, later, with Troy and Ben Zahne, Troy mentioned that he had seen a whirlwind disappear into the subsidence.

Certain ceremonies (Male Windway and Male Shootingway) make use of these TCPs. Offerings are made and other rituals are also performed at these locations. I talked with a medicine man, Clifford Bancroft, about the above information, and he recommended that we do not disturb the subsidence where the sightings have occurred to be left undisturbed; for, a person who disturbs such sites can suffer some serious disharmony. He also said we could address the other subsidences nearby and fence in the area of the snake sightings. Mr. Bancroft, besides other ceremonies, performs the Male Windway and Male Shootingway.

Recommendation: Contact Navajo Nation Archaeology Department, in consultation with appropriate

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medicine people, let them make a determination whether this site is a TCP and follow their recommendations. Medicine people from the western Navajo area should be used as these ceremonies may differ from other parts of the Nation. Personally, I would follow Mr. Bancroft's advice.

All materials related to the above projects will be turned over to Lawrence. If there are questions concerning this memorandum or if I can be of assistance, I can be reached at (520) 283-2252 after June 9, 1997.

XC: Lawrence Begay, RSII, NAMLRD-TCFO
Madeline Roanhorse, Director, NAMLRD
Central Files
TC/Memo

SURVEILLANCE & MONITORING CHECKLIST

Type of action a => Contingency Repair; b => Custodial Maintenance - equipment use required;
required: c => Custodial Maintenance - manual labor only

			Type of Action Required & Notes	Action
1	NA-0001	Window Rock		
2	NA-0002	Jack Johnson	b - erosion control structures need repair	Need VE
3	NA-0003	North Hogback	a - 5 reopenings/2 subs. areas/2 new Ps	In East. Agency
4	NA-0004	Newcomb	b - reopenings	Need VE
5	NA-0005	Little Water		
6	NA-0006	Tsa Ya		
7	NA-0007	Blackgoat		
8	NA-0008	Montezumas Chair	b - reopening at Round Top site	Need VE
9	NA-0009	Chinle Mine (Blue Gap)	b - settling or subsidence & erosion	Need VE
10	NA-0010	Sweathouse Peak		
11	NA-0011	Shonto		
12	NA-0012	Chilchinbeto	a - subsidence & reopening	In Black Mesa 2
13	NA-0013	Balakai		
14	NA-0014	Ferro/Canoncito	James & Rose visited - sites OK	
15	NA-0015	John Joe		
16	NA-0016	Tohatchi	b - reopening & erosion	Need VE
17	NA-0017	Coalmine Mesa	a - subsidence	In Coal 4
18	NA-0018	White Rock	Monitor fire & sites unreclaimed at Chapter Request	Cont. monitoring
19	NA-0019	Chaco Wash	b - reopening & erosion	Need VE
20	NA-0020	Halgaii Toh	b - subsidence	Need VE
21	NA-0021	James Barber	b - settling or subsidence @ site #1	Need VE
22	NA-0022	Tree Well	Unreclaimed site - Indian Allotment land	Report to NMAML
23	NA-0023	Nenahnezad		
24	NA-0024	Crownpoint	a - reopenings	In East. Agency
25	NA-0025	Steamboat		
26	NA-0026	Manuelito		
27	NA-0027	Toyee		
28	NA-0028	Red Rock		
29	NA-0029	La Vida Mission	Monitoring fire	Cont. monitoring
30	NA-0030	Wingate Hogback	b - erosion (NM AML/Indian Allotment land)	Report to NMAML
31	NA-0031	Chindi Wash	a - subsidence	Need VE
32	NA-0032	Reptile I		
33	NA-0033	Reptile II	c - erosion	Need VE
34	NA-0034	Lohali Point		
35	NA-0035	Needle		
36	NA-0036	Dalton-Hannah	a & c - included Coal 5 & erosion	In Coal 5
37		Shonto Coal Fire	Monitoring fire	?, Cont. monitoring

SURVEILLANCE & MONITORING CHECKLIST

Type of action a => Contingency Repair; b => Custodial Maintenance - equipment use required;
 required: c => Custodial Maintenance - manual labor only

			Type of Action Required & Notes	Action
Coppermine AML Project				
38	NA-0100	Coppermine Mines (11 sites)	c - fence taken down at site #24	?, OK for now

Cameron AML Project 1				
39	NA-0105	Henry Sloan No. 1 (2 sites)	b - erosion	in CP5
40	NA-0113	Jeepster	b - erosion & cracking	in CP5
41	NA-0123	Charles Huskon No. 19		
42	NA-0125	Charles Huskon No. 12		
43	NA-0141	Juan Horse No. 4	c - cracking & small holes	NAMLRD-TC
44	NA-0148	Jack Huskon No. 3		

Cameron AML Project 2				
45	NA-0127	Max Johnson No. 1		
46	NA-0128	Lemuel Littleman No. 2a&b (2 sites)		
47	NA-0129	Charles Huskon No. 1	b - erosion	In CP5
48	NA-0130	Max Johnson No. 2		
49	NA-0135	Evans Huskon No. 2		
50	NA-0136	Yazzie No. 101		
51	NA-0138	Boyd Tisi No. 2		
52	NA-0139	Juan Horse No. 3	c - cracking	OK, monitor
53	NA-0149	Charles Huskon No. 3 (4 sites)	b - erosion	Cont. Monitoring
54	NA-0153	Charles Huskon No. 7	b - erosion	Cont. Monitoring
55	NA-0154	Yazzie No. 102	b - erosion	Cont. Monitoring

Monument Valley AML Project 1				
56	NA-0200	Moonlight	c - cracking & small holes	NAMLRD-TC
57	NA-0201	Boot Jack	c - settling	?, need VE
58	NA-0202	Fern Mine		
59	NA-0203	Tract II		

Cove I AML Project				
60	NA-0300	Mine 11, 12, & 15 (Sites #6-18)	a - Subsidence	In Cove 2
61	NA-0301	Frank No. 1 Mines (Site #81)		
62	NA-0302	Mesa V Mines (Sites #88-90)		
63	NA-0303	Cove Mesa Mines (Sites #147-55,180-90)		

Beclabito I AML Project				
64	NA-0400	Syracuse Mines (Sites #19-35)		
65	NA-0401	Copper Mine (Sites #69 & 70)	c - unstable historic structures	OK, No action

SURVEILLANCE & MONITORING CHECKLIST

Type of action a => Contingency Repair; b => Custodial Maintenance - equipment use required;
required: c => Custodial Maintenance - manual labor only

Blue Gap AML Project

			Type of Action Required & Notes	Action
66	NA-0700	Rough Rock Slope No. 9 (Site 12)		
67	NA-0701	Claim 28 (Site 14)	c - Erosion	In Black Mesa 2
68	NA-0702	Claim 7 & 10 (Sites 15-17)		
69	NA-0703	Etsitty No. 1 (Sites 27 & 28)		

Oak Spring I AML Project

70	NA-0800	Gravel Top Claim (Sites #13 & 14)		
71	NA-0801	Lower Oak Creek (Sites #17-21)		
72	NA-0802	Upper Salt Rock Claim (Sites #210 & 211)		
73	NA-0803	VCA Plot No. 3 (Site #168-176)		
74	NA-0804	VCA Plot No. 3 (Site #161)		
75	NA-0805	VCA Plot No. 3 (Site #132)		
76	NA-0806	VCA Plot No. 3 (Site #144-156)	a - subsidence	In Oak Spring 3
77	NA-0807	E. Tapahonso Claim (Sites #107 & 108)		

Oak Spring II AML Project (Under Warranty)

78	NA-0808	Gravel Top Claim (Sites #1-12, 15 & 16)		
79	NA-0809	VCA Plot No. 3 (Site #136)		
80	NA-0810	E. Tapahonso Claim (Sites #90 & 91)		
81	NA-0811	King Tutt Point (Sites #111-125)		
82	NA-0812	E. Tapahonso Claim (Sites #109, 110 & 212)		

Tse Tah I AML Project

83	NA-0901	Rattlesnake Borehole		
84	NA-0902	Sites #58-76: Rattlesnake Mines		
85	NA-0903	Site #157		
86	NA-0904	Sites #164-166		
87	NA-0905	Sites #146-148	b - 3x1 opening	?, Need VE
88	NA-0906	Sites #45-55	c - depression	?, Need VE
89	NA-0907	Sites #80-83		
90	NA-0908	Sites #90-93		
91	NA-0909	Sites #110-117		
92	NA-0910	Sites #105-109		

Tse Tah II AML Project

93	NA-0911	Sites #1-35		
94	NA-0912	Sites #85-86	c - small voids	Warranty work
95	NA-0913	Sites #87-89	c - erosion activity	Warranty work
96	NA-0914	Sites #95-104: Martin/Sah Tah Mines		
97	NA-0915	Sites #118-121	c - ponding	Warranty work
98	NA-0916	Sites #151-154	c - small void	Warranty work

RECLAIMED AML SITES VISITED TO DATE (August 21, 1996)

PROJECT NUMBER AND PROJECT NAME

PROBLEMS NOTED

Coal Projects

1	NA-0001	Window Rock	None
2	NA-0002	Jack Johnson	Aprons on diversion channels need to be repaired
3	NA-0003	North Hogback	7 sites have reopened due to settling of backfill material & 2 subsidences
4	NA-0004	Newcomb	2 of the 3 closed portal have reopened due to settling of backfill material
5	NA-0005	Little Water	Minor maintenance of erosion (sediment) control structures.
6	NA-0006	Tsa Ya	None
7	NA-0007	Blackgoat	None
8	NA-0008	Montezuma's Chair	Round Top Site has reopened due to settling of backfill material
9	NA-0009	Chinle Mine (Blue Gap)	Subsidence (24'x15' area) occurring and channel erosion.
10	NA-0010	Sweathouse Peak	None; 1 MO remains - historical structure?
11	NA-0011	Shonto	None
12	NA-0012	Chilchinbeto	Subsidence (at southern site) has caused reopening of closure
13	NA-0013	Balakai	None
14	NA-0014	Ferro/Canoncito	None
15	NA-0015	John Joe	None
16	NA-0016	Tohatchi	Maintenance of erosion (sediment) control structures needed; Settling has caused reopening
17	NA-0017	Coal Mine Mesa	None; subsidence to be addressed in Coal 4 & 5 Project
18	NA-0018	White Rock	Monitored coal fire + 4 sites unreclaimed at chapter request
19	NA-0019	Chaco Wash	Subsidence (at northern site) causing reopening of closure
20	NA-0020	Halgaii Toh	Subsidence/ settling (25' dia.) occurring.
21	NA-0021	James Barber	Subsidence/settling at Site #1 - this sub-site may have not been reclaimed.
22	NA-0022	Tree Well	3 gob piles; one MO (?); Site shows no reclamation work - maybe in allotted land
23	NA-0023	Nenahnezad	None
24	NA-0024	Crownpoint	Reopening of closure due to settling of backfill material - to be addressed in Eastern Agency Project
25	NA-0025	Steamboat	None
26	NA-0026	Manuelito	None
27	NA-0027	Toyee	None
28	NA-0028	Red Rock	None
29	NA-0029	La Vida Mission	Coal Fire - Monitoring; Cracking & sloughing
30	NA-0030	Wingate Hogback	Erosion problems - terrace edges & under fence; Insufficient closure of MO; on allotted land
31	NA-0031	Chindi Wash	Subsidence (at southern site) causing reopening of closure
32	NA-0032	Reptile I	None
33	NA-0033	Reptile II	None
34	NA-0034	Lohali Point	None
35	NA-0035	Needle	None
36	NA-0036	Dalton-Hannah	One mine opening (P) to be addressed in ongoing Coal 4 & 5 Project
37		Shonto Coal Fire	1987 OSM Emergency Project - Fracturing due to underground fire; continue monitoring

RECLAIMED AML SITES VISITED TO DATE (August 21, 1996)

PROJECT NUMBER AND PROJECT NAME

PROBLEMS NOTED

Coal Projects

1	NA-0001	Window Rock	None
2	NA-0002	Jack Johnson	Aprons on diversion channels need to be repaired
3	NA-0003	North Hogback	7 sites have reopened due to settling of backfill material & 2 subsidences
4	NA-0004	Newcomb	2 of the 3 closed portal have reopened due to settling of backfill material
5	NA-0005	Little Water	Minor maintenance of erosion (sediment) control structures.
6	NA-0006	Tsa Ya	None
7	NA-0007	Blackgoat	None
8	NA-0008	Montezumas Chair	Round Top Site has reopened due to settling of backfill material
9	NA-0009	Chinle Mine (Blue Gap)	Subsidence (24x15 area) occurring and channel erosion.
10	NA-0010	Sweathouse Peak	None; 1 MO remains - historical structure?
11	NA-0011	Shonto	None
12	NA-0012	Chilchinbeto	Subsidence (at southern site) has caused reopening of closure
13	NA-0013	Balakai	None
14	NA-0014	Ferro/Canoncito	None
15	NA-0015	John Joe	None
16	NA-0016	Tohatchi	Maintenance of erosion (sediment) control structures needed; Settling has caused reopening
17	NA-0017	Coal Mine Mesa	None; subsidence to be addressed in Coal 4 & 5 Project
18	NA-0018	White Rock	Monitored coal fire + 4 sites unreclaimed at chapter request
19	NA-0019	Chaco Wash	Subsidence (at northern site) causing reopening of closure
20	NA-0020	Halgaii Toh	Subsidence/ settling (25 dia.) occurring.
21	NA-0021	James Barber	Subsidence/settling at Site #1 - this sub-site may have not been reclaimed.
22	NA-0022	Tree Well	3 gob piles; one MO (?); Site shows no reclamation work - maybe on allotted land
23	NA-0023	Nenahnezad	None
24	NA-0024	Crownpoint	Reopening of closure due to settling of backfill material - to be addressed in Eastern Agency Project
25	NA-0025	Steamboat	None
26	NA-0026	Manuelito	None
27	NA-0027	Toyee	None
28	NA-0028	Red Rock	None
29	NA-0029	La Vida Mission	Coal Fire - Monitoring; Cracking & sloughing
30	NA-0030	Wingate Hogback	Erosion problems - terrace edges & under fence; Insufficient closure of MO; on allotted land
31	NA-0031	Chindi Wash	Subsidence (at southern site) causing reopening of closure
32	NA-0032	Reptile I	None
33	NA-0033	Reptile II	None
34	NA-0034	Lohali Point	None
35	NA-0035	Needle	None
36	NA-0036	Dalton-Hannah	One mine opening (P) to be addressed in ongoing Coal 4 & 5 Project
37		Shonto Coal Fire	1987 OSM Emergency Project - Fracturing due to underground fire; continue monitoring

RECLAIMED AML SITES VISITED TO DATE (August 21, 1996)

PROJECT NUMBER AND PROJECT NAME

PROBLEMS NOTED

Coppermine AML Project

37	NA-0100	Coppermine Mines (11 sites)	None
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Cameron AML Project 1

38	NA-0105	Henry Sloan No. 1 (2 sites)	Erosion occurring - riprap drainage; terracing & scarification of final cover to reduce erosion
39	NA-0113	Jeepster	Erosion occurring - Installation of drop structure will reduce head cutting of channel.
40	NA-0123	Charles Huskon No. 19	None
41	NA-0125	Charles Huskon No. 12	None
42	NA-0141	Juan Horse No. 4	Cracking due to settling
43	NA-0148	Jack Huskon No. 3	None

Cameron AML Project 2

44	NA-0127	Max Johnson No. 1	None
45	NA-0128	Lemuel Littleman No. 2 (2 sites)	None
46	NA-0129	Charles Huskon No. 1 (2 sites)	None
47	NA-0135	Evans Huskon No. 2 (2 sites)	None
48	NA-0139	Juan Horse No. 3	Minor cracking due to settling
49	NA-0149	Charles Huskon No. 3 (4 sites)	Erosion occurring - riprap drainage; terracing & scarification of final cover to reduce erosion
50	NA-0153	Charles Huskon No. 7	Erosion occurring - riprap drainage; terracing & scarification of final cover to reduce erosion
51	NA-0154	Yazzie No. 102	Erosion occurring - riprap drainage; terracing & scarification of final cover to reduce erosion

Monument Valley AML Project 1

52	NA-0200	Moonlight	Cracking along pit edge due to settling
53	NA-0201	Boot Jack	Minor settling
54	NA-0202	Radium Hill/Fern Mine	Minor settling
55	NA-0203	Tract II	None

Cove I AML Project

56	NA-0300	Mine 11, 12, & 15 (Sites #6-18)	Sites (3 on SE end) have openings due to settling of backfill
57	NA-0301	Frank No. 1 Mines (Site #81)	None
58	NA-0302	Mesa V Mines (Sites #88-90)	None
59	NA-0303	Cove Mesa Mines (Sites #147-155, 180-190)	None

Beclabito I AML Project

60	NA-0400	Syracuse Mines (Sites #19-35)	None
61	NA-0401	Copper Mine (Sites #69 & 70)	Unstable Structures - foot bridge & highwall

Blue Gap AML Project

62	NA-0700	Rough Rock Slope No. 9 (Site 12)	None
63	NA-0701	Claim 28 (Site 14)	None
64	NA-0702	Claim 7 & 10 (Sites 15-17)	None
65	NA-0703	Etsitty No. 1 (Sites 27 & 28)	None

RECLAIMED AML SITES VISITED TO DATE (August 21, 1996)

PROJECT NUMBER AND PROJECT NAME

PROBLEMS NOTED

Oak Spring I AML Project

66	NA-0800	Gravel Top Claim (Sites #13 & 14)	None
67	NA-0801	Lower Oak Creek (Sites #17-21)	None
68	NA-0802	Upper Salt Rock Claim (Sites #210 & 211)	None
69	NA-0803	VCA Plot No. 3 (Site #168-176)	None
70	NA-0804	VCA Plot No. 3 (Site #161)	None
71	NA-0805	VCA Plot No. 3 (Site #132)	None
72	NA-0806	VCA Plot No. 3 (Site #144-156)	Subsidence
73	NA-0807	E. Tapahonso Claim (Sites #107 & 108)	None

Oak Spring II AML Project

74	NA-0808	Gravel Top Claim (Sites #1-12, 15 & 16)	None
75	NA-0809	VCA Plot No. 3 (Site #136)	None
76	NA-0810	E. Tapahonso Claim (Sites #90&91)	None
77	NA-0811	King Tutt Point (Sites #111-125)	None
78	NA-0812	E. Tapahonso Claim (Sites #109, 110 & 212)	None

Tse Tah I AML Project

79	NA-0901	Rattlesnake Borehole	None
80	NA-0902	Rattlesnake Mines (Sites #58-76)	None
81	NA-0903	Site #157	None
82	NA-0904	Sites #164-166	None
83	NA-0905	Sites #146-148	Site #147 has reopened due to settling of backfill material
84	NA-0906	Sites #45-55	Site #105 has reopened due to settling of backfill material
85	NA-0907	Sites #80-83	None
86	NA-0908	Sites #90-93	None
87	NA-0909	Sites #110-117	None
88	NA-0910	Sites #105-109	None

Tse Tah II AML Project

89	NA-0911	Sites #1-35	None
90	NA-0912	Sites #85-86	Site #86 has reopened due to settling and subsidence over closure
91	NA-0913	Sites #87-89	Erosion washing off cover material
92	NA-0914	Sites #95-104	None
93	NA-0915	Sites #118-121	None
94	NA-0916	Sites #151-154	None

NAMLRD ARCHAEOLOGICAL SURVEY LIST

<u>NA #</u>	<u>Site No. & Name</u>	<u>Mine Type</u>	<u>Chapter</u>	<u>USGS 7.5'</u> <u>Topo. Quad</u>	<u>Acres</u>
1	96-1 F&B Claims	Rimstrip (prospect)	Bodaway/Gap	Bitter Spring	25.00
2	96-3 Unnamed	Rimstrip (prospect)	Bodaway/Gap	Explosive Rock	5.00
3	96-4 Unnamed	Rimstrip	Bodaway/Gap	Lees Ferry	28.75
4 NA-0101	96-5 Jimmy Boone (a)	Portal	Bodaway/Gap	Lees Ferry	5.00
5 NA-0101	96-6 Jimmy Boone (b)	Portal	Bodaway/Gap	Lees Ferry	5.00
6	96-7 Jimmy Boone (c)	Rimstrip	Bodaway/Gap	Lees Ferry	3.75
7	96-8 Jimmy Boone (d)	Rimstrip	Bodaway/Gap	Lees Ferry	3.75
8	96-9 Jimmy Boone (e)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	6.25
9	96-10 Jimmy Boone (f)	Drill holes (prospect)	Bodaway/Gap	Lees Ferry	6.25
10	96-11 June (a)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	1.25
11	96-12 June (b)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	1.25
12	96-13 June (c)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	1.25
13	96-14 Tommy (a)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	1.25
14	96-15 Tommy (b)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	1.25
15	96-16 Tommy (c)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	1.00
16	96-17 Tommy (d)	Rimstrip (prospect)	Bodaway/Gap	Lees Ferry	1.25
17	96-18 Tommy (e)	Rimstrip	Bodaway/Gap	Lees Ferry	6.25
18	96-19 Thomas #1 (a)	Rimstrip/Portal	Bodaway/Gap	Bitter Spring	7.50
19	96-20 Thomas #1 (b)	Rimstrip	Bodaway/Gap	Bitter Spring	7.00
20	96-21 Black Peak	Rimstrip (prospect)	Bodaway/Gap	The Gap	1.00
21	96-22 Icicle (a)	Rimstrip (prospect)	Bodaway/Gap	Willow Springs	1.00
22	96-23 Icicle (b)	Rimstrip (prospect)	Bodaway/Gap	Willow Springs	1.00
23 NA-0102	96-24 Max Huskon (a)	Open pit	Bodaway/Gap	Willow Springs	1.00
24 NA-0102	96-25 Max Huskon (b)	Open pit	Bodaway/Gap	Willow Springs	2.00
25 NA-0102	96-26 Max Huskon (c)	Open pit	Bodaway/Gap	Willow Springs	2.00
26 NA-0102	96-27 Max Huskon (d)	Open pit	Bodaway/Gap	Willow Springs	2.00
27 NA-0102	96-28 Max Huskon (e)	Rimstrip	Bodaway/Gap	Willow Springs	2.00
28 NA-0102	96-29 Max Huskon (f)	Rimstrip	Bodaway/Gap	Willow Springs	2.00
29 NA-0102	96-30 Max Huskon (g)	Rimstrip	Bodaway/Gap	Willow Springs	2.00
30	96-31 Yellow Jeep (a)	Portal (collapsed)	Coal Mine Mesa	The Landmark	6.25
31	96-32 Yellow Jeep (b)	Rimstrip	Coal Mine Mesa	The Landmark	1.00
32	96-33 Amos Chee #1-3 (a)	Rimstrip	Coal Mine Mesa	Standing Rock	8.25
33	96-34 Amos Chee #1-3 (b)	Rimstrip	Coal Mine Mesa	Standing Rock	6.00
34	96-35 Amos Chee #1-3 (c)	Rimstrip	Coal Mine Mesa	Standing Rock	7.25
35	96-36 Amos Chee #1-3 (d)	Rimstrip	Coal Mine Mesa	Standing Rock	3.75
36	96-37 Adolf Maloney	Rimstrip	Coal Mine Mesa	Standing Rock	6.00
37	96-38 Martin Johnson	Rimstrip	Bodaway/Gap	Willow Springs	6.25
38	96-39 Hosteen Nez (a)	Rimstrip	Coal Mine Mesa	Gold Spring	6.25
39	96-40 Hosteen Nez (b)	Rimstrip	Coal Mine Mesa	Gold Spring	1.25
40	96-49 Morale Claim	Rimstrip/Portal	Indian Wells	Indian Wells	5.00
41	96-50 Hoskie Tso Claim	Rimstrip (prospect)	Indian Wells	Indian Wells	2.00
42	96-58 Zealy Tso (a)	Rimstrip	Chinle	Del Muerto	1.00

NAMLRD ARCHAEOLOGICAL SURVEY LIST

		USGS 7.5'			
<u>NA #</u>	<u>Site No. & Name</u>	<u>Mine Type</u>	<u>Chapter</u>	<u>Topo. Quad</u>	<u>Acres</u>
43	96-59 Zealy Tso (b)	Rimstrip	Chinle	Del Muerto	1.00
44 NA-0103	CAM-1 Earl Huskon No.1-2	Pits	Bodaway/Gap	Shadow Mtn Well	13.00
45 NA-0103	CAM-2 Paul Huskie No.21 (A&B No.21)	Pit/Rimstrip/Shaft	Bodaway/Gap	Shadow Mtn Well	18.00
46 NA-0103	CAM-3 Earl Huskon No.3	Pits	Bodaway/Gap	Shadow Mtn Well	10.00
47	CAM-4 A & B No.5	Rimstrip/Pit	Bodaway/Gap	Shadow Mtn Well	3.75
48	CAM-5 Charles Huskon No.7 (MP-357)	Rimstrip	Bodaway/Gap	Shadow Mtn Well	12.50
49	CAM-7 A & B No.13	Rimstrip	Bodaway/Gap	Shadow Mtn Well	1.25
50	CAM-8 A & B No.7	Rimstrip	Bodaway/Gap	Shadow Mtn Well	1.25
51 NA-0104	CAM-11 Charles Huskon No.6	Pits	Coal Mine Mesa	Cameron North	19.00
52	CAM-12 Lemuel Littleman No.1,7	Pit	Coal Mine Mesa	Cameron North	2.50
53	CAM-14 Montezuma No.7c	Rimstrip	Bodaway/Gap	Cameron North	5.00
54	CAM-15a Montezuma No.7b	Rimstrip	Bodaway/Gap	Cameron North	1.25
55	CAM-15c Montezuma No.7b	Rimstrip	Bodaway/Gap	Cameron North	1.25
56	CAM-16 Montezuma No.7a	Rimstrip	Bodaway/Gap	Cameron North	1.25
57	CAM-17a Montezuma No.2-west	Rimstrip	Bodaway/Gap	Cameron North	3.75
58	CAM-17b Montezuma No.2-east	Rimstrip	Bodaway/Gap	Cameron North	12.50
59	CAM-18 Casey No.3	Rimstrip	Coal Mine Mesa	Cameron North	1.25
60	CAM-19 Kachina No.6	Wastepiles	Coal Mine Mesa	Cameron North	3.75
61	CAM-21 Evans Huskon No.34	Pit	Coal Mine Mesa	Cameron NE	5.00
62	CAM-22 Charles Huskon No.20	Pit	Coal Mine Mesa	Cameron NE	2.50
63 NA-0106	CAM-26 A & B No.3	Pit	Cameron	Cameron North	18.00
64	CAM-40 Lemuel Littleman No.3	Rimstrip	Cameron	Cameron South	1.25
65	CAM-43 Charles Huskon No.14	Rimstrip	Cameron	Cameron South	15.00
66 NA-0107	CAM-44 Montezuma No.1	Pit	Cameron	Cameron South	5.50
67	CAM-45 Manuel Denetsone No.2	Vert. Shaft	Coal Mine Mesa	Cameron SE	1.25
68 NA-0108	CAM-47 A & B No.2	Rimstrip	Cameron	Cameron South	18.00
69	CAM-52 Paul Huskie No.1,2&20	Rimstrip	Cameron	Cameron South	8.75
70	CAM-58a Charles Huskon No.8	Rimstrip	Cameron	Cameron SE	6.25
71	CAM-58b Charles Huskon No.8	Rimstrip	Cameron	Cameron SE	6.25
72	CAM-59 Boyd Tisi No.1	Pit	Cameron	Cameron SE	1.25
73	CAM-60 Evans Huskon No.35	Pit	Coal Mine Mesa	Cameron SE	18.75
74	CAM-64 Taylor Reid No.2	Pit	Cameron	Cameron South	2.50
75 NA-0109	CAM-85 Jackpot No.40	Pit	Coal Mine Mesa	Wupatki NE	21.00
76	CAM-89 Amos Chee No.8	Pit	Coal Mine Mesa	Wupatki NE	3.75
77 NA-0110	CAM-90 Max Johnson No.7	Pit	Coal Mine Mesa	Wupatki NE	10.00
78	CAM-91 Charles Huskon No.9	Pit	Coal Mine Mesa	Wupatki NE	6.25
79	CAM-92 Elwood Thompson No.1	Wastepiles	Coal Mine Mesa	Wupatki NE	3.75
80	CAM-99 Charles Huskon No.18	Pit	Coal Mine Mesa	Wupatki NE	7.50
TOTAL APPROXIMATE ACRES					469.00

Cost of survey at \$50/acre ==>

\$23,450.00